



Retina Laser Solutions

Providing world-class laser
systems for the treatment of
retinal disease

Iridex provides a portfolio of established, laser systems, delivery devices and endoprobes for a full spectrum of retina treatments

At Iridex, we are redefining the treatment of retinal diseases with our versatile range of laser-based products and procedures, which provide physicians safe, effective, and practical treatment options for diabetic macular edema (DME) and other retinal diseases. Iridex products are sold in the United States and Germany through a direct sales force and internationally through a network of distributors into more than 100 countries.



MicroPulse[®] Technology

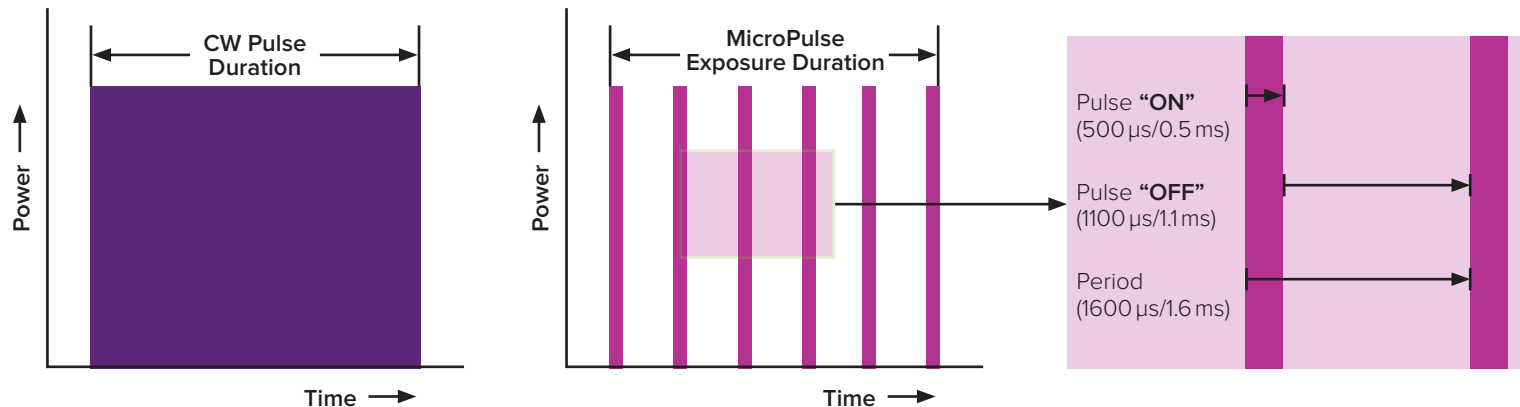
Only from Iridex. Since 1999.

Iridex' patented MicroPulse technology chops a continuous-wave laser beam into an envelope of repetitive short "ON" pulses separated by longer "OFF" periods. The OFF periods allow heat to dissipate and reduce thermal buildup within the tissue, which minimizes collateral tissue damage, inflammation and side effects.

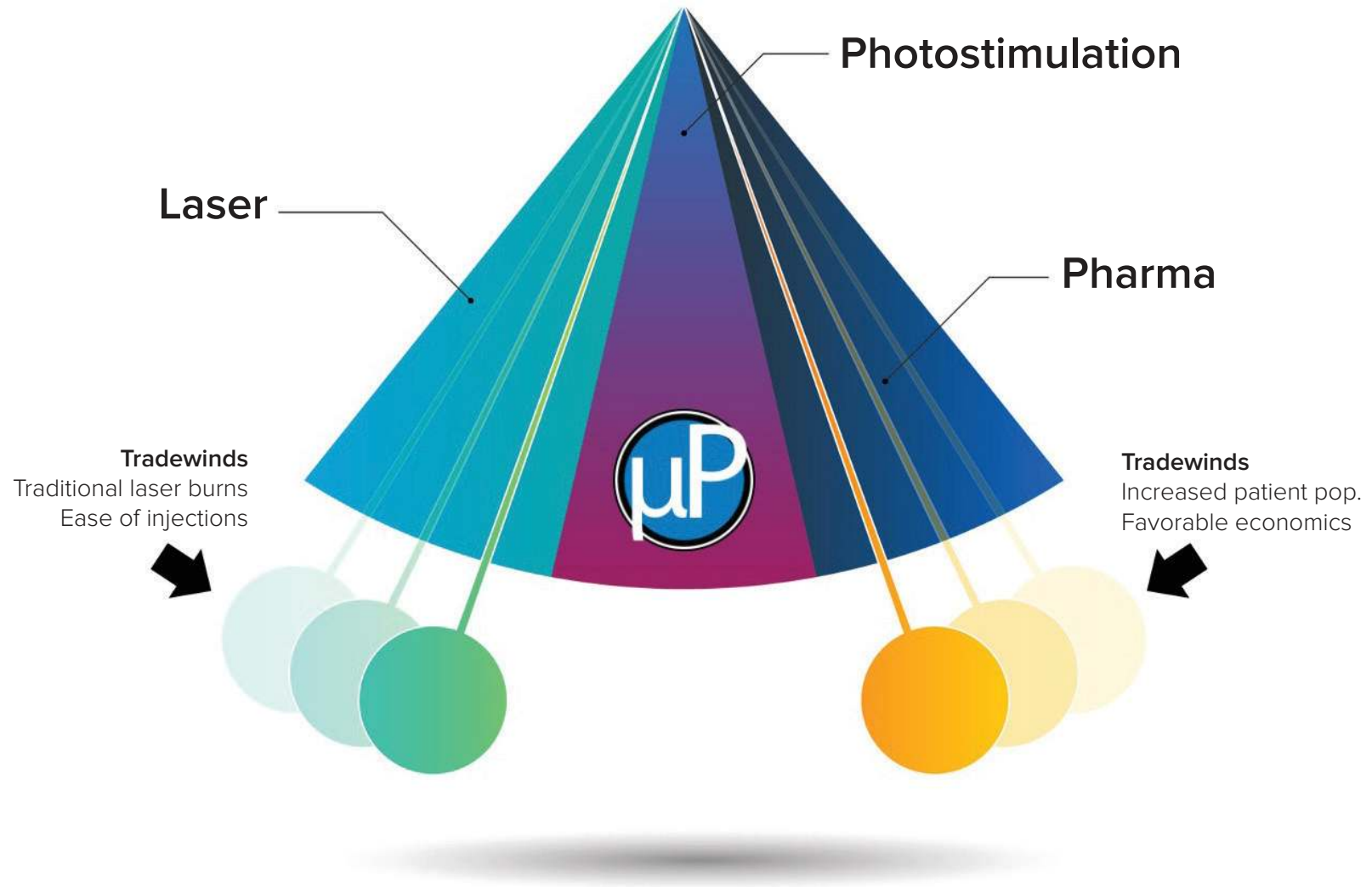
MicroPulse is a laser delivery modality that adds fine control of photothermal effects in laser photocoagulation. In conventional

photocoagulation, the temperature rise for an intended intraoperative endpoint is controlled by adjusting the power and the exposure duration of the continuous-wave (CW) laser emission.

MicroPulse Technology can be used to treat multiple retinal diseases, including age-related macular degeneration, branch retinal vein occlusion, retinal tears and detachments, retinopathy of prematurity, macular edema, and many others.



Developing Global Changes in the Standard of Care



We are committed to supporting physicians and the patients they serve

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Compared to other lasers, the **IQ 532 Laser** with the MicroPulse module offers greater versatility because it can also be used for a range of other conditions including diabetic macular edema, proliferative diabetic retinopathy, and retinal tears.



DAVID GOSSAGE, DO, FAOCO, FAAO
Gossage Eye Institute
Hillsdale, MI USA

“

The **IQ 532 Laser with the TxCell** is an invaluable adjunct in my armamentarium for a growing multitude of retinal and choroidal pathologies. In my hands, MicroPulse laser has achieved significant anatomic and functional gains as primary and combination therapy.



CAESAR LUO, MD
Bay Area Retina Associates
Oakland, CA USA

“

Using the **A&I XR Probe**, I was able to reach the full periphery of the eye. Its narrow cone angle allowed me to treat with lower power and further from the retina than other laser probes. This results in enhanced physician visualization and improves patient safety

“

The **LIO Plus**, with its intuitive design and practical features, plays a large role in my laser treatment protocol — It is proving to be effective for my most challenging peripheral cases, and my colleagues and I have been pleased with the results.



SHAWN KAVOUSSI, MD
Texas Retina Center
Houston, United States



SAM MANSOUR, MD, MSC, FRCSC, FACS
Virginia Retina Center & George Washington
University

“

The **IQ 577 Laser** has simplified and improved the efficiency of laser clinics dramatically



CHRISTOPHER RIEMANN, MD
Cincinnati Eye Institute
Cincinnati, OH USA

IQ 532[®] Laser

A green laser (532 nm) with MicroPulse and continuous-wave treatment modes for retina and glaucoma treatments

Use for medical retina with a slit lamp adapter (SLA) and laser indirect ophthalmoscope (LIO) and for glaucoma care with an SLA.

The Advantages of Innovation

- High power (2500 mW) for greater range of therapy alternatives
- High speed with pulse durations from 10 to 3000 ms
- Voice confirmation

Ergonomic and Easy to Use

- Dual port for efficient setup of devices
- Intuitive graphic touch screen interface
- 10 programmable user presets
- Convenient 3-knob control console

Optional Modules and Accessories

- MicroPulse treatment mode to allow repeatable laser sessions and the ability to perform MicroPulse Laser Trabeculoplasty (MLT) for glaucoma
- Full-featured remote control with a compact design for easy placement or use in sterile field. The view displays and adjust parameters from 2 vantage points for increased convenience and efficiency
- Wireless Footswitch with power-adjust to control laser actuation and power settings



Learn More

IQ 577[®] Laser

A yellow laser (577 nm) with MicroPulse and continuous-wave treatment modes for retina and glaucoma treatments

Use for medical retina with a slit lamp adapter (SLA) and laser indirect ophthalmoscope (LIO) and for glaucoma care with an SLA.

Ergonomic and Easy to Use

- MicroPulse treatment mode to allow repeatable laser sessions and the ability to perform MicroPulse Laser Trabeculoplasty (MLT) for glaucoma
- With voice confirmation
- Dual port for efficient setup of devices
- Intuitive graphic touch screen interface
- 10 programmable user presets
- Convenient 3-knob control console

Modules and Accessories

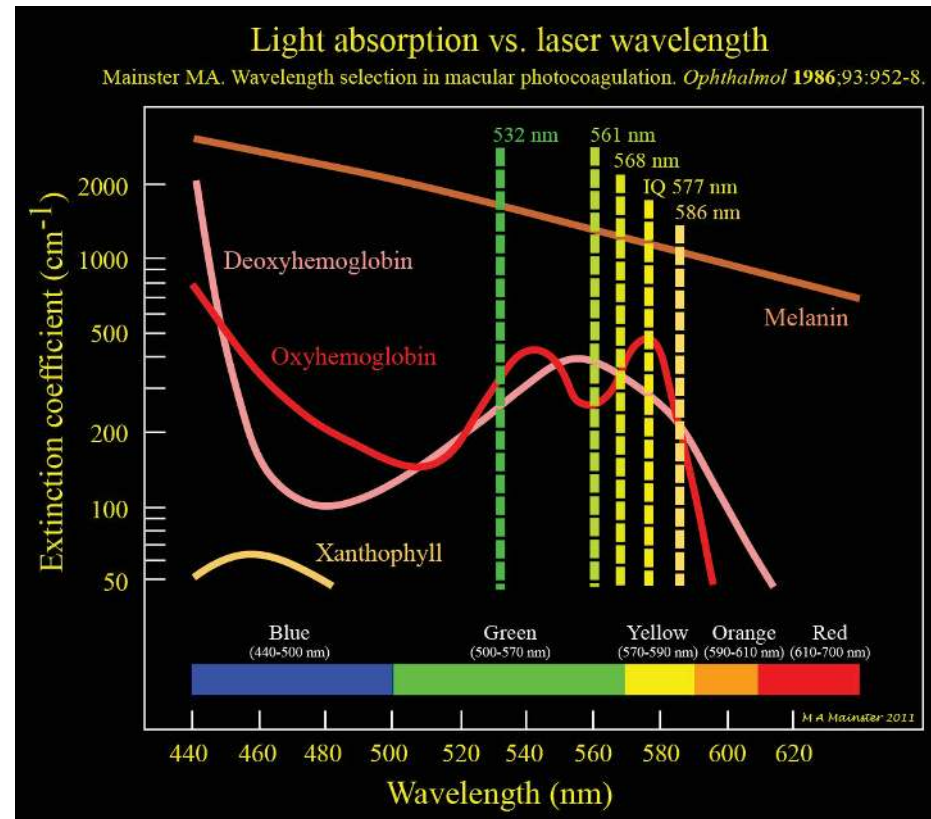
- Full-featured remote control with a compact design for easy placement or use in sterile field. The view displays and adjust parameters from 2 vantage points for increased convenience
- Wireless footswitch with power-adjust to control laser actuation and power settings



[Learn More](#)

Benefits of 577 nm Yellow Laser

- A true-yellow, 577 nm, wavelength with peak absorption in oxyhemoglobin and is minimally absorbed by xanthophyll, which allows treatment closer to the fovea[#]
- It also offers high transmission through dense ocular media^{1,2} and less light scattering than shorter wavelengths which minimizes spot size and reduces thermal spread
- Consistent laser lesions for fast procedure time[#]
- Enhanced visibility for reduced intraretinal damage² enabling early observation of very light tissue reactions at the level of the retinal pigment epithelium (RPE)
- Lower transmission to deeper tissues,^{2,4} and low power requirements for increased patient comfort³



Laser Wavelength & Effective Light Absorption

Pascal[®] Synthesis[™] Pattern Scanning Laser

The industry leading pattern scanning laser technology

With enhanced optics, improved ergonomics, intuitive software, and subthreshold capabilities, the Pascal Synthesis allows faster procedures with less pain, collateral damage and scarring for your patients[#]



Exclusive Precision Spots with Multi-Fiber Beam Technology



Reduced power and short pulses produce less discomfort during treatment



Rapid pattern scanning laser delivery



Precise alignment and continuous laser pulse directed by high speed galvanometers



Enhanced laser delivery slit lamp



Endpoint Management for sub-threshold treatment¹



Pattern Scanning Laser Trabeculoplasty (PSLT)¹ for IOP reduction²



Ergonomic Design and Improved Optical Design

Improved coaxiality between the slit illumination and the aiming beam provides better visibility of the peripheral retina.



Comfortable Observation with our NEW Binocular System

The CB-8 binocular system with 8-degree angle provides clear vision. The smooth movement of the PD adjustment makes it easier to find a comfortable PD range. New magnification configuration improves visibility of the treatment area. The 5x, 8x, 13x, 20x and 32x magnification grouping allows for a wider view of the treatment area.



Power Adjustment Knob

Quick and precise adjustment of the laser treatment power.



LED Illumination

Sharp and homogeneous LED illumination for comfortable viewing



Gooseneck Fixation Target

Easy to adjust the fixation target.



Micro-manipulator

Allows precise alignment of aiming beam and treatment delivery.



Experience More Power and Precision

- Improved pattern generator design
- Electronically-controlled laser allows for more even burns on larger patterns
- Increased field of view
- Brighter and clearer LED illumination
- Improved binocular system with reduced angle for comfortable viewing

Elevated Synthesis Design

- Allows for complete wheelchair and exam chair accessibility
- Table design allows space for all materials required for patient treatment
- Simple design allows for more streamlined repair and service

Intuitive Software

- Simplifies procedures and saves time
- Pascal's laser control software is built around a powerful Linux system
- Endpoint Management (EpM) subthreshold technology takes the guesswork out at non-visible treatment levels
- Doctors set exact laser endpoints and Pascal ensures the proper output is provided
- Pascal is fast. Most patterns delivered in less than a second.
- Pascal is precise. 4-Fiber design gives the physician better depth of focus when performing treatments.
- Pascal is comfortable. Short pulse duration and low intensity delivery allows for increased patient comfort.
- Pascal is offers tissue-sparing sub-threshold and gentle treatment options for Retina (EpM) and Glaucoma (PSLT)

Expand Your Treatment Options

The Pascal laser's multimodal design offers a variety of treatment patterns, titration capabilities, and tissue-sparing technology.

- Variety of Patterns
- Single Spot Option
- EpM
- PSLT
- LIO*

Safe, Speedy, and Effective Treatments

Pascal Endpoint Management (EpM)** and Pattern Scanning Laser Trabeculoplasty (PSLT)** offers patients a superior standard of care with targeted, subthreshold, and tissue-sparing treatment developed by leading experts.



Learn More

* Laser Indirect Ophthalmoscope (LIO) is only available on 532 and 577 systems.

** Optional

With Endpoint Management™

Endpoint Management (EpM) is a pattern sub-threshold retinal laser therapy that uses a unique algorithm to control laser power and pulse duration, optimizing the therapeutic effect of the laser at sub-visible levels.

Mathematically Precise

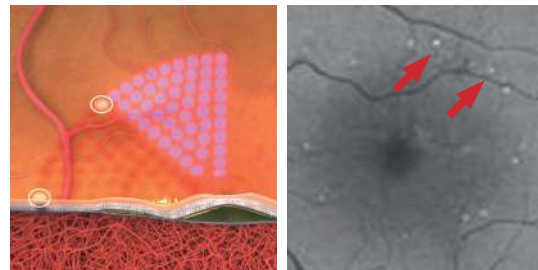
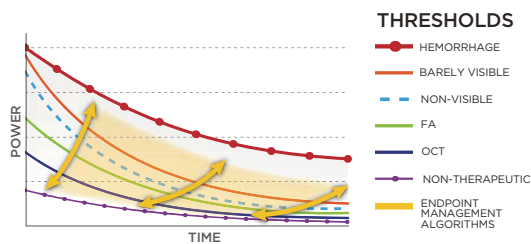
The Arrhenius Integral coupled with extensive data on retinal laser-tissue interactions defines the algorithms for Endpoint Management. By use of this formula, heat induced changes in the retina are controlled as Endpoint Management simultaneously modulates the laser power and duration, providing linear control over a non-linear process.

Landmark™ Patterns

The Landmark feature is a useful tool for tracking the sub-visible areas which have been treated, assisting with the treatment process and taking the guesswork out of successive treatments.

Easy Operation

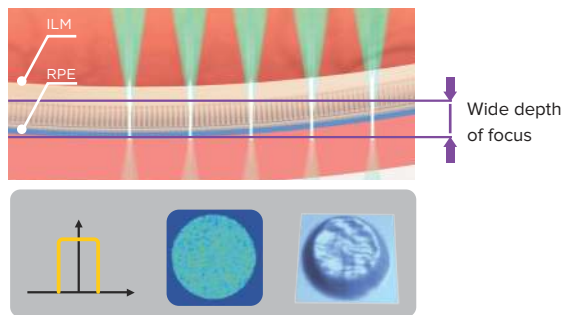
The yellow dots displayed on the user interface treatment pattern display indicate the laser spots that will be delivered using the energy level set by Endpoint Management. While Endpoint Management is active, the red dots indicate the laser spots that will be delivered at the titration energy level (“100% level”) and will provide the “Landmark” reference points outlining the treated area.



Multi-Fiber Beam Delivery System

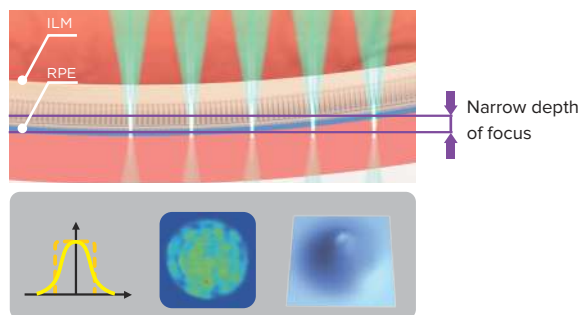
Pascal Synthesis multi-fiber beam delivery provides one dedicated fiber optic for each spot size. This increases depth of field compared to zoom optic laser systems.

Multi-Fiber Beam Delivery



Profile image of beam delivery:
PASCAL has uniform energy distribution

Zoom Optic Laser Systems



Profile image of beam delivery:
Other lasers have "hot spots" in the beam profile

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Pattern scanning method is the preferred way and I believe it's standard of care.



MARK S. BLUMENKRANZ, MD

HJ Smead Professor and Chair Director
of the Byers Eye Institute at Stanford
University

“

Result is greater patient comfort with decreased pain.
Much safer, much more effective.



PRAVIN U. DUGEL, MD

Retinal Consultants of Arizona

Iridex 810 Laser

A multi-functional diode infrared (810 nm) laser for the treatment of glaucoma and retinal diseases

Compatible with multiple delivery devices that allows a vast variety of treatment modalities in MicroPulse, LongPulse, or continuous-wave treatment modes.

The Advantages of Innovation

- Use in the office or operating room
- Portable and easy to setup
- With a 7-in color LCD touchscreen
- Intuitive user interface
- Programmable user presets for up to 9 individual presets

Compatible with Multiple Iridex Devices

- EndoProbe handpieces
- Slit lamp adapters
- Operating microscope adapter
- LIO Plus
- LIO Premiere
- MicroPulse P3® Delivery Device
- G-Probe Illuminate® Delivery Device*
- G-Probe® Delivery Device

Indications

- Retinal photocoagulation
- Laser trabeculoplasty
- Transscleral retinal photocoagulation
- Transscleral cyclophotocoagulation
- MicroPulse® transscleral laser therapy
- Other diode laser treatments



* External illumination source is required



Learn More

Oculight[®] SLx Laser

Diode infrared (810 nm) laser for the treatment of glaucoma and retinal diseases

Designed to offer a vast variety of treatment modalities for a wide selection of indications.

The Advantages of Innovation

- A combination of power and versatility
- With MicroPulse, LongPulse, or continuous-wave treatment modes
- Ability to add a remote control
- Compact, portable, and easy to setup

Compatibility

- EndoProbe handpieces
- Slit lamp adapters
- Operating microscope adapter
- LIO Plus
- LIO Premiere

Indications

- Retinal photocoagulation
- Laser trabeculoplasty
- Transscleral retinal photocoagulation
- Transscleral cyclophotocoagulation
- MicroPulse[®] transscleral laser therapy
- Iridotomy

Diseases

- Open-angle glaucoma
- Close-angle glaucoma
- Refractory glaucoma
- Diabetic retinopathy
- Macular edema
- Retinal tears, detachments and holes
- Lattice Degeneration
- Age-related macular degeneration
- Retinopathy of prematurity
- Sub-Retinal (choroidal) neovascularization
- Central/branch retinal vein occlusion



[Learn More](#)

Oculight® TX Laser

Green (532 nm) laser with maximum control and power

It sets the highest standards of power, precision, and user ergonomics, and offers superb performance in a wide array of clinical applications.

Combines High Power with High Speed

- Efficiency with a full 2000 mW of deliverable laser power
- Provides pulse durations and pulse intervals from 10 to 3000 milliseconds

Excellent Ergonomics and Portability

- Quiet operation eliminates distraction during treatment
- Convenient, easily understood controls permit smooth interface with the laser system and delivery devices
- Transports easily between treatment rooms and offices

Convenient Accessories

- Compatible with a host of delivery devices, including laser indirect ophthalmoscopes, comprehensive slit lamp adapters and a complete EndoProbe® family of laser probes
- Optional remote control for enhanced operational setup
- Optional wireless footswitch to reduce clutter and improve ergonomics and control



Learn More

TxCell® Scanning Laser Delivery

Multi-spot pattern scanning for efficient panretinal photocoagulation

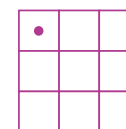
The TxCell® Scanning Laser Delivery is a versatile platform that offers standard photocoagulation with optimized wavelengths and MicroPulse® treatment mode for retinal disorders and for Trabeculoplasty for glaucoma therapy. Target Cell technology enables physicians to visualize the perimeter of the targeted area. Optimal for subvisible MicroPulse protocols.

Intelligent and Intuitive Design

- Single and multi-spot pattern delivery using standard continuous-wave or MicroPulse treatment modes
- Multi-spot patterns offer confluent (zero spacing) ideal for MicroPulse protocols
- Rotatable patterns to designate treatment starting point

Visible Target Cells

Grid
(Adjustable grid from 2x2 to 7x7)



Circle
(Adjustable radius)



Triple Arc
(Adjustable radius & arc)



Delivered Laser Spots



Learn More

Pascal[®] LIO

Laser Indirect Ophthalmoscope with LED Illumination

The Pascal LIO offers you increased access to the far periphery of the retina and allows you to treat patients who are unable to sit at a SLA.

Filters

With multiple illumination filters for superior visualization of the retina.

- Clear Light: Ideal for inspecting a specific pathology and when a brighter, whiter light is desired.
- Red Free: Used to examine blood vessels in fine detail. By filtering out the red light, blood vessels are silhouetted against a green background.
- Cobalt Blue: This filter is used with fluorescein dye for angiography.
- Diffuser: Diffused light permits a more relaxed technique during more challenging fundus examinations.

Apertures

The aperture selections auto-adjust illumination and viewing mirrors for maximum stereopsis. The large aperture is ideal when examining fully dilated pupils, the intermediate is ideal for children and sensitive patients, and the small aperture is ideal for undilated pupils.



Learn More

LIO Plus

An Easy to Use Single-Mirror Laser Indirect Ophthalmoscope

Ergonomic and provides excellent peripheral visualization, treatment flexibility, consistency, and reliability. Iridex's single-mirror laser indirect ophthalmoscope, has been considered the gold standard of LIOs. Retina specialists and teaching institutions around the world use it for its excellent visualization, ease of use, and reliability.

Excellent Peripheral Visualization

- It is ergonomic, intuitive, and ideal to use in patients who are best examined and treated in a supine position
- Has a lightweight headset with size adjustments to optimize fit and comfort
- Permits independent positioning of the laser spot within the illuminated field, or simultaneous adjustment of both the laser spot and illuminated field within the user's visual field
- The long laser depth of focus tolerates a wide range of working distances
- The 810 nm Large Spot model can be used with the OcuLight SLx Laser to deliver transpupillary thermotherapy for the treatment of intraocular tumors.^{1,2}
- The single-wavelength models are compatible with 532 nm, 577 nm, and 810 nm Iridex lasers
- A dual-wavelength model can be used with both 532 nm and 810 nm Iridex lasers for added utility
- The halogen illumination source offers consistent illumination and great color rendering
- Its integrated laser filters provide protection for the physician during use
- Includes a travel case for safe storage and ease of transportation



[Learn More](#)

Endoprobe® Handpieces

Endoprobe instrumentation targets the retina to deliver precise energy exactly where you need it. With a wide array of models, there is an Endoprobe for every vitreoretinal laser case.

Stepped Angled

- Smooth and gently tapered needle permits insertion of angled tip through standard and valved cannulas
- Patented design provides full coverage of peripheral retina without removing probe from eye



Adjustable & Intuitive (Finger or Thumb)

- Patented design allows continuous adjustment of fiber optic over a wide range of angles
- Provides full coverage of peripheral retina without removing probe from eye
- Extends in logical motion, forming a greater angular deflection as slider is advanced



Illuminating Laser Probes

- Dual function - white-light illumination with laser delivery in one convenient design
- Offers bimanual operation - one hand manages illumination and laser delivery, freeing the other hand to operate additional instruments
- Optimal brightness - combines multiple illumination fibers and one laser fiber



Standard Straight

- Provides direct access to treatment site
- Facilitates easy insertion and extraction at the sclerotomy site
- Increased visibility due to tapered tip



Standard Angled

- Used for treatment of the peripheral retina
- Provides greater flexibility when using a wide field viewing system
- Includes a tapered tip for easier insertion and visibility of the treatment area



Aspirating

Active

- Combines the utility of active aspiration and endophotocoagulation
- Eliminates the need for extrusion needles and frees hand for illumination
- Includes Luer fitting compatible with standard aspirating equipment

Passive Fluted

- Combines the utility of passive aspiration and endophotocoagulation
- For subretinal fluid aspiration associated with tears and detachments
- Designed for surgeons who prefer to control the rate of fluid extrusion with their finger



Specifications and ordering information

IQ 532® Laser

Wavelength	532 nm (green)
Weight	9.0 kg (19.2 lb)
Dimensions	30.5 cm x 35.6 cm x 21.4 cm (12 in W x 14 in D x 8.5 H)
Connector type	RFID I Resistor
Electrical	100–240 VAC, 50/60 Hz
Cooling	Air/TEC cooled
Exposure duration	CW-Pulse™: 10 ms – 3000 ms or CW to 60 seconds
Exposure interval	CW-Pulse: 10 ms – 3000 ms or single pulse
MicroPulse duration	MicroPulse: 0.05–1.00 ms
MicroPulse interval	MicroPulse: 1.00–10.00 ms
Aiming laser	Diode laser, 635 nm nominal
Delivery device power output	TxCell, SLA, LIO, and EndoProbe: 0–2000 mW; OtoProbe: 0–2500 mW
Part number	IQ532-SYSTEM

IQ 577® Laser

Wavelength	577 nm (yellow)
Weight	9.0 kg (19.2 lb)
Dimensions	30.5 cm x 35.6 cm x 21.4 cm (12 in W x 14 in D x 8.5 H)
Connector type	RFID I Resistor
Electrical	100–240 VAC, 50/60 Hz
Cooling	Air/TEC cooled
Exposure duration	CW-Pulse™: 10 ms – 3000 ms or CW to 60 seconds
Exposure interval	CW-Pulse: 10 ms – 3000 ms or single pulse
MicroPulse duration	MicroPulse: 0.05–1.00 ms
MicroPulse interval	MicroPulse: 1.00–10.00 ms
Aiming laser	Diode laser, 635 nm nominal
Delivery device power output	TxCell, SLA, LIO, and EndoProbe: 0–2000 mW
Part number	IQ577-SYSTEM



Iridex 810 Laser

Wavelength	810 nm infrared
Weight	5.85 kg (12.9 lbs)
Dimensions	30cm x 30cm x 17cm (11.8 in. W x 11.8 in. D x 6.7 in. H)
Treatment power	Varies by type of delivery device. Maximum treatment laser power is 3000 mW
Continuous-wave	Duration: 10, 20, 30, 40, 50, 75, 100, 150, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000, 7000, 8000, 9000 ms
	10 - 60 seconds (increments of 5 seconds)
	1- 2 minutes (increments of 10 seconds)
	2 - 5 minutes (increments of 30 seconds)
	5 - 30 minutes (increments of 1 minute)
	Interval: None, 50, 100, 200, 300, 400, 500, 600, 700, 800, 900, and 1000 ms
MicroPulse	Duration: 0.10 - 1.00 ms (on time), increments of 0.05 ms
	Interval: 1.0 - 10.0 ms (off time or interval time), increments of 0.10 ms
Aiming beam	Red laser diode. User-adjustable intensity; 1 mW maximum; coaxial with treatment beam; 650 nm
Electrical	~ 100 - 240 V, 50 - 60 HZ
Operating temperature	10 °C to 40 °C (50 °F to 122 °F)
Relative humidity	20% to 80%
Equipment protection	Class 1
Laser class	Class 4
Touchscreen	7-in color LCD touchscreen interface (1280x800)
Part number	22000

The MicroPulse P3 (part number 15522), G-Probe (part number 15980), and G-Probe Illuminate (part number 16200) are single-use devices. Two-year warranty, one wired footswitch, and one pair of 810 nm safety glasses are included with the Iridex 810 laser. The carry case is sold separately. Indications for the MicroPulse P3 Device include, but are not limited to transscleral cyclophotocoagulation for the treatment of primary open-angle glaucoma, closed-angle glaucoma, and refractory glaucoma. Specifications are subject to change without notice.

* External illumination source is required for the G-Probe Illuminate Delivery Device.

Oculight® SLx Laser

Wavelength	810 nm
Weight	6.3 kg (14.0 lb)
Dimensions	30 cm x 30 cm x 10 cm (12 in W x 12 in D x 4 in H)
Connector type	Resistor
Electrical	100–240 VAC, 50/60 Hz
Cooling	Air cooled
Exposure duration	Continuous-wave: 10–9000 ms in 29 increments; LongPulse: 10 s- 30 min in 26 increments
Exposure interval	CW-Pulse: 50–1000 ms in 11 increments and Single Pulse
MicroPulse duration	MicroPulse: 0.1–1.0 ms
MicroPulse interval	MicroPulse: 1.0–10.0 ms
Aiming laser	Diode laser, 650 nm nominal
Delivery device power output	SLA: 0–2000 mW; LIO: 0–2000 mW; LIO-LS: 0-2000 mW; EndoProbe: 0–2000 mW; OMA: 0-2000 mW
Part number	SLx-SYSTEM

Oculight® TX Laser

Wavelength	532 nm Green
Weight	6.0 kg (13.2 lb)
Dimensions	30 cm x 30 cm x 15 cm (12 in W x 12 in D x 6 in H)
Connector type	Resistor
Electrical	100–240 VAC, 50/60 Hz
Cooling	Whisper fan with peltier cooling
Exposure duration	CW-Pulse: 10–3000 ms
Exposure interval	CW-Pulse: 10–3000 ms
Aiming laser	Diode laser, 650 nm nominal
Delivery device power output	SLA: 0–1800 mW; LIO: 0–2000 mW; EndoProbe®: 0–2000 mW
Part number	TX-SYSTEM

TxCell® Scanning Laser Delivery System

Compatible Lasers	IQ 532™ (532 nm, Green) or IQ 577™ (577 nm, Yellow)
Laser Energy Source	Frequency-doubled solid-state and direct diode
Maximum Power	2000 mW
Exposure Duration	CW-Pulse™: 10–3000 ms
Exposure Interval:	CW-Pulse: 10–3000 ms
MicroPulse® Duration	MicroPulse: 0.05–1.00 ms
MicroPulse Interval	MicroPulse: 1.00–10.00 ms
MicroPulse Duty Cycle	Presets of 5%, 10%, and 15% (adjustable from 0.4% - 50%)
Aiming Beam	Diode laser, 635 nm nominal
Patterns	Grid (2x2 - 7x7), Circle, Triple Arc
Pattern Spacing	Confluent (zero), 1-, 2-, 3-spot spacing in 0.25 diameter increments
User Interface	Touch-screen & knobs
Slit Lamp	Iridex SL 980, IRIDEX SL 990, Zeiss 30SL, Zeiss SL 130, Haag-Streit BM/BQ 900 and equivalents
Spot Sizes	Single spot: 50 µm, 100 µm, 200 µm, 300 µm, 500 µm; Multi-spot: 100 µm, 200 µm, 300 µm, 500 µm
Electrical	100 – 240 VAC, 50/60 Hz
Part number	70292 (Zeiss 30 577), 70295 (Haag-Streit 577), 70297 (Zeiss 30 532), 70300 (Haag-Streit 532)

Haag-Streit® Style

Zeiss® Style

Pascal® Synthesis Pattern Scanning Laser

	Synthesis (Y7 / G7 / Y4 / G4)	Synthesis TwinStar
Laser	Available in 577nm or 532nm Optically Pumped Semiconductor (OPSL)	577nm , 638nm*1
Patterns	Single Spot, Array, Triple Arc*2, Triple Ring, Arc, Line, Circle, Enhanced Octants (EpM*3), Wedge, Hexagon	
Power	0 - 2000mW	577nm: 0 - 2000mW 638nm: 0 - 600mW
Power control	3-D Controller*4 and Touch Screen User Interface	
Treatment	Pulse Durations 5 to 1000ms*5	
Aim beam	635nm diode	670nm diode
Aim beam power	Adjustable to < 1mW	
Delivered spot size	50, 100, 200, 400µm	577nm: 50, 100, 200, 400µm 638nm: 60, 200µm
User interface	3D Controller*4 and Touch Screen Control Panel Display (26.5 cm; 10.4 in)	
Slit lamp compatibility	Haag-Streit BM900 and BQ900, Topcon SL-PA04 and SL-D7	Topcon SL-PA04
Laser console dimensions	Height: 23 cm (9 in) Length: 31 cm (12 in) Width: 38 cm (15 in) Weight: 15 kg (35 lbs)	
Input power requirement	100 - 240 VAC; 50/60Hz 200VA	
Cooling	TEC / Air Cooled	
Part number	SA-06455 (577 nm), SA-06454 (532 nm), SA-06452 (577 nm / 638 nm)	

*1 577nm is for Single, Pattern scan, PSLT and Endpoint Management. 638nm is only for single spot.

*2 Triple arc is only for Angle treatment by PSLT

*3 EpM is optional software

*4 Optional accessory

*5 Pulse Durations 5ms is only for Triple arc

Pascal® LIO

System compatibility	532 nm: PASCAL, Slimline, Streamline, Synthesis; 577 nm: Streamline, Synthesis
Illumination source	LED
Headset power requirements	Battery operation
Headset weight	1.2 lb (0.5 kg)
Charging station	100-240V - 50/60Hz
Power supply	12V: 2.5amps Battery
Cooling	TEC/Air Cooled
Part number	SA-06172 (577 nm), SA-06171 (532)

LIO Plus

Product Number	Wavelength	Spot Size*	Laser Compatibility	Connector
30903 - H500	532 nm / 810 nm	360 µm	OcuLight GL, GLx, TX, SL, SLx, IQ 532	Resistive
13152 - H500	810 nm	360 µm	OcuLight SL, SLx, DioVet	Resistive
13153 - H500 (Large Spot)	810 nm	1400 µm	OcuLight SL, SLx, DioVet	Resistive
65515 - H500	532 nm	360 µm	IQ 532	RFID
65900 - H500	577 nm	360 µm	IQ 577	RFID

Dimensions

Width	7.0 cm / 2.75 in
Length	13.5 cm / 5.31 in
Height	12.3 cm / 4.84 in
Weight	239 g / 0.52 lbs

Ophthalmoscope

Headband circumference adjustment range	520 mm to 640 mm
Illumination field sizes**	50 mm, 40 mm, 20 mm
Interpupillary adjustment	48 mm - 74 mm
Ophthalmoscope filters	Clear, red-free, amber

Endoprobe® Handpieces

Model	Description (Box/6)	19.5 gauge	20 gauge	23 gauge	25 gauge
Stepped Angled	Angled 45°		14030	14400	14120
Adjustable & Intuitive	Finger Adjust (0° - 45°)		14572F	14573F	14574F
Adjustable & Intuitive	Thumb Adjust (0° - 45°)		14572T	14573T	14574T
Adjustable & Intuitive	XR Finger Adjust (0° - 70°)		15905F	15906F	15907F
Adjustable & Intuitive	XR Thumb Adjust (0° - 70°)		15905T	15906T	15907T
Illuminating Laser Probes	Bayonet Angled 30°		14410		
Illuminating Laser Probes	BriteLight™ Straight	13900		14540	14490
Illuminating Laser Probes	BriteLight Angled 30°	14020			
Illuminating Laser Probes	BriteLight Angled 45°	13930			
Illuminating Laser Probes	BriteLight Stepped Angled 20°				14560
Illuminating Laser Probes	BriteLight Stepped Angled 45°			14545	
Standard Straight	Straight		10562	14390	13920
Standard Angled	Angled 45°		10547		
Aspirating	Passive Fluted		11473		
RFID EndoProbe*	Stepped			65698	

*Compatible with IQ 532 and IQ 577 laser systems



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